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SOUTH YAMHILL RIVER BASIN PRELIMINARY ECONOMIC RECONNAISSANCE AND ESTIMATE OF GROWTH, 1960-2010

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Prepared by: Economic Studies Group
Water Supply and Pollution Control Program
Pacific Northwest

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ENGINEERING BRANCH
COLUMBIA BASIN PROJECT

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I. Introduction

A. Purpose of This Analysis

This analysis is intended to provide a preliminary estimate of the economic potentials and anticipated growth of the subject area.

B. Definition of the Area

The South Yamhill River Basin includes the southern half of Yamhill County and the northern third of Polk County, in Oregon.

C. Study Period

The study period is the 50-year period 1960-2010, with an interim point at 1980.

D. Limitations of This Analysis

Two limitations apply to this study. The first is that it is intended only as a preliminary estimate of the outlook for the subject area's growth. Subsequently, in connection with the Columbia River Basin Project for Water Supply and Water Quality Management, an analysis will be made on an industry-by-industry basis of the growth potential in the various sub-basins. At that time, this preliminary estimate will be reviewed, and revised if necessary.

The second limitation is that this study is intended for use particularly in assessing future water needs. Emphasis has been placed on the analysis of those industries which make heavy demands upon the water resource. Other industries have been considered only insofar as they may have a significant effect on future population. For this reason, this study is not submitted as a detailed industrial forecast.

II. Present Economy of the Basin

A. Population

Estimated population in the South Yamhill River Basin is shown in Table 1. Its population declined slightly during the 1950-60 decade. Population in the Basin increased during the 1940-50 decade, although the rate of increase was below that for the State at large. For the

20-year period 1940-60, the rate of population increase in the Basin was significantly less than in the State. Population changes in the subject Basin have closely paralleled those for Polk and Yamhill Counties as a whole.

Table 1
ESTIMATED POPULATION IN THE SOUTH YAMHILL RIVER BASIN[1/]

Area	Population (in thousands) 1940	1950	1960	Change 1950 as % of 1940	1960 as % of 1950	1960 as % of 1940
So. Yamhill R. Basin, TOTAL	15.3	19.9	19.5	130	98	127
Portion in Polk County	3.5	3.8	3.5	109	92	100
Portion in Yamhill County	11.8	16.1	16.0	136	99	136
Polk + Yamhill Co., TOTAL	46.3	59.8	59.0	129	99	127
Oregon, TOTAL	1089.7	1521.3	1768.7	140	116	162

[1/] Discrepancies between physical Basin boundary, 1960 Census Division boundaries, and precinct boundaries used in 1940 and 1950 have been estimated from USGS maps.

There are only four incorporated communities in the Basin. All are in Yamhill County, with the exception of a small portion of the City of Willamina, which extends into Polk County. Their populations are shown in Table 2. There are no sizeable unincorporated communities.

Table 2
POPULATION IN CITIES IN THE SOUTH YAMHILL RIVER BASIN

Community	Population 1940	1950	1960	Change[1/] 1950 as % of 1940	1960 as % of 1950	1960 as % of 1940
Amity	545	672	620	123	92	114
McMinnville	3706	6635	7656	179	115	207
Sheridan	1294	1922	1763	149	92	136
Willamina	677	1082	960	159	89	142
TOTAL	6222	10311	10999	165	107	176

[1/] An unidentifiable but relatively small portion of population growth was a result of annexation of contiguous areas.

A comparison of Tables 1 and 2 shows that the four cities represented 56 percent of total Basin population in 1960 and that this proportion has been increasing over the years. In 1950, 52 percent of Basin population was in the four cities and in 1940, 41 percent.

McMinnville, which alone represented 39 percent of total Basin population in 1960, has shown a relatively strong growth trend. Its population increased during the 1950-60 decade at a rate about equal to the growth of the State, even though the other three cities and the South Yamhill Basin as a whole were declining in population.

Nearly all of the population increase in the Basin over the 20-year period 1940-60 occurred in McMinnville, which added about 4,000 persons while the net increase in all the rest of the Basin was only about 200. The other three cities added 800 and there was a decrease of 600 in the rural population. This period included the decade of the 1940's, however, when there was an exceptionally rapid expansion in the lumber and wood products industries in the area. During the decade 1950-60, McMinnville added about 1,100 population; the other three cities lost about 400; and rural population declined about 1,100, making a decline of 400 for the Basin as a whole during the decade.

B. Industries

Data on employment by industry are not available for smaller units than counties. However, the employment pattern in the Basin is believed to approximate closely that in the combined two-county area of Polk and Yamhill Counties. Some slight discrepancy may arise from the fact that West Salem is located in the portion of Polk County outside the South Yamhill River Basin, which would make service industry employment relatively more important in the two-county area than in the subject Basin. The location of the Oregon College of Education at Monmouth, in the portion of Polk County outside the South Yamhill River Basin also tends to increase service employment, but this is balanced by the location of Linfield College at McMinnville, within the subject Basin. One indication that the economy of the subject Basin is quite similar to that of the two-county area as a whole is that the population rates of growth and decline in the respective areas during the past two decades have been almost identical. Table 3 shows employment by industry in the two-county area, based on the U. S. Census of April 1950.

It is assumed that the distribution of employment in the subject Basin follows the same proportions as that shown in Table 3.

Table 3
EMPLOYMENT, BY INDUSTRY, IN POLK AND YAMHILL COUNTIES, 1950

Total Population	59,801
Total Employed Civilian Labor Force	21,556
Agriculture	5,392
Forestry and fisheries	35
Mining	87
Manufacturing, TOTAL	5,553
Lumber and wood products	4,183
Food and kindred	508
All other manufacturing	862
Construction	1,139
Services	9,350

Table 4 shows the relative specialization in the South Yamhill River Basin economy by comparing the distribution of the labor force there with the distribution in the Portland Region, in which the subject Basin is located. Data are for 1950 but they are still broadly indicative. The subject Basin has above average employment, relative to the Portland Region, in lumber and wood products manufacturing and in agriculture, and relatively less employment in the service industries. Polk and Yamhill Counties rely for many service functions on the Portland Metropolitan Area.

Table 4
EMPLOYMENT BY INDUSTRY PER 1,000 OF TOTAL POPULATION, 1950

Industry	South Yamhill River Basin[1/]	Portland Region[2/]
Total Employed Civilian Labor Force per 1,000 population	360.5	376.0
Agriculture	90.2	44.7
Forestry and fisheries	0.6	2.2
Mining	1.5	1.0
Manufacturing, TOTAL	92.8	89.4
Lumber and wood products	69.9	53.5
Food and kindred	8.5	8.4
All other manufacturing	14.4	27.5
Construction	19.0	27.9
Services[3/]	156.4	210.8

1/Distribution based on figures for Polk and Yamhill Counties as a whole.
2/Includes all of Oregon plus five counties of southwestern Washington.
3/Includes "Industry not reported" classification, representing less than one percent of labor force.

III. Estimated Future Growth

A. Possibilities for Growth

In 1950, the economic base of the South Yamhill River Basin was heavily dependent upon agriculture and lumber and wood products manufacturing. Data from the 1960 Census are not yet available, but figures for jobs covered by unemployment compensation as of April, 1960, indicate that, during the 1950-60 decade, there was a sizeable drop in employment in lumber and wood products manufacturing in the Basin.

In the future, timber will continue to be an important resource in the Basin. It is assumed that the timber harvest in the Basin is now at a level which will be maintained in the future. Inroads into forest acreage, as a result of construction of highways, power transmission lines and dams, will tend to be offset by improvements in yield. However, even though the total harvest in the future may remain the same as at present, an increasing proportion of the logs may go to large mills outside this Basin. There has been a trend of consolidation of small mills with larger, more efficient ones, and this is likely to continue. This tendency is facilitated by the increase in the length of the economically acceptable haul for logs from forest to mill. On the other hand, even if fewer logs remain for use in the Basin, employment there may not drop proportionately. This is because secondary manufacturing and new products are increasing the number of jobs which can be supported on a given amount of raw log resource. However, a trend tending to reduce employment is increasing output per worker, a trend which is likely to continue.

Many of the foregoing factors tend to offset each other. In the case of the South Yamhill Basin, it is anticipated that the negative factors will probably cancel the factors making for growth in employment, so that no sizeable increase in employment in lumber and wood products manufacturing seems likely.

Employment in the Basin's other major industry, agriculture, has also felt the effects of increasing productivity per worker. During the period 1954 to 1959, the number of farms in Yamhill and Polk Counties combined declined from 3,900 to 3,500, and there was a substantial drop in the number of persons employed in agriculture, even though the total value of farm products sold increased during the period. This trend is expected to continue, though at a less dramatic rate, so that any increases in agricultural acreage and production that are feasible in the Basin are likely to be accomplished without additional farm labor.

While employment in agriculture and in lumber and wood products manufacturing declined during the 1950-60 decade, employment in "Food and kindred" manufacturing and in the "all other" manufacturing category increased moderately in the Basin. Future growth in the Basin will depend on this sort of diversification.

Diversification of the economy of the Basin is likely to be centered around McMinnville, the only part of the Basin to show any substantial growth in recent years. McMinnville derives its growth impetus from the fact that it is far enough from Portland to be able to support independent service industries, from the location there of Linfield College and its physics research laboratory, and from its function as county seat. Several small manufacturing firms have located at McMinnville recently and it appears likely this trend of moderate growth will continue.

B. Estimate of Future Popultation

Most of the growth in the subject Basin is likely to be concentrated at McMinnville, and, in this initial survey, it is assumed that that city's growth will be about the same as the growth of the State as a whole. Tentative estimates for the State are for an annual growth rate of 2.0 percent from 1960-80, 1.7 percent from 1980-2000, and 1.5 percent from 2000-2010.

For the portion of the Basin outside McMinnville, there appears to be little prospect of population growth exceeding half of the growth rate for the State as a whole, and it could be considerably less than that. In this initial survey, it is assumed that growth in the Basin outside McMinnville will be at lightly less than half of the State average. Rates used in Table 5 for this portion of the Basin are 0.7 percent per year for 1960-80, 0.6 percent per year for 1980-2000, and 0.5 percent per year for 2000-2010.

On the basis of the preceding assumptions, population increase in the subject Basin would be as follows:

Table 5
PRELIMINARY ESTIMATE OF FUTURE POPULATION GROWTH IN THE SOUTH YAMHILL BASIN

	Population, thousands			
	1960	1980	2000	2010
McMinnville	7.7	11.4	16.0	18.6
Rest of Basin	11.8	13.6	15.3	16.1
TOTAL Basin	19.5	25.0	31.3	34.7

The annual growth rates for the Basin as a whole would be 1.3 percent during 1960-80, 1.1 percent during 1980-2000, and 1.0 percent during 2000-2010.